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FREE

GREATER TORONTO EDITIONS: MARCH 1999 VOLUME 11, NO. 3

LAB TEST

• 233 MHz
Pentium II
Systems

• ABC's of DVD

FISTFUL OF GRAPHICS

Introducing the 17 inch (16.0" viewable)

The G5771 redefines sleek.

The new G5771 is ViewSonic's smallest 17" (16.0" viewable) monitor. In fact, its compact design takes up less desktop space than a conventional 14" monitor.

But when it comes to performance, it's a lot bigger than it looks. The key is SuperClear™, ViewSonic's advanced screen technology that achieves the clearest text available in high contrast GRBs with the bright, vivid colors found in spectrum grade monitors.

A big idea.

For the budding business site owner or anyone with limited space, the G5771's short depth monitor is ideal for online internet desktop applications, business graphics, web page design and spreadsheets.

Both PC and Mac™ compatible, the G5771 meets TCO '95 and MIL-STD standards which reduce heat emissions, lower power consumption and mandate the use of recyclable parts. And, it's backed by a limited three-year warranty—one of the best in the business.

ViewSonic G5771

- 17" Monitor
(16.0" viewable)
- 1.026 x 768 optional
resolution at 85Hz
- SuperClear™
- TCO '95 and MIL-STD
Compliance
- Plug & Play™

No small feat.

The space saving G5771's short depth monitor is the latest example of ViewSonic's leadership in the 17" (actual viewable) market. Only our engineers could design a performer this big into a footprint this small. Grab a tape measure and see for yourself.



with the body of a 14 inch.

Call ViewSonic® at (800) 444-4583 for the dealer nearest you, or visit our website at www.viewsonic.com.

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COMING UP IN GREATER TORONTO EDITION

April 1998

Featuring an ad on Linux • Live review:
Microsoft software collection
Various technology

Ad Deadline: Tue, Feb 24
Distribution: Fri, Mar 13

May 1998

Editorial special: production & design
New library & security software
Consumer technology & CD-ROM

Ad Deadline: Tue, Mar 11
Pre-press: Apr 17

June 1998

Editorial special: a 1000+ pages
Central special: a 1000+ pages
Editorial & design & design & design

Ad Deadline: Tue, Apr 23
Distribution: Fri, May 15

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The Computer Paper's
WORLD WIDE WEB SITE

www.tcp.ca

"There's only so many
hours of home videos
I can possibly watch!"



Matrox Rainbow Runner Studio

- Movie for video and image editing, video conferencing, PC to TV video transfers (VCR)
- Video capture module for Matrox Mystique 250
- Supports video capture (1080i) for Matrox Millennium II (available Q3 '98)

Matrox Rainbow Runner TV

- VGA TV tuner upgrade for Matrox Rainbow Runner Studio
- Ideal for viewing TV on the PC and monitoring TV programs on your PC
- Includes PC VCR Remote software

Matrox Mystique 250 Home

- Ideal for 2D/3D video, video and 3D applications
- In-Game Buffer & Try Again, Electronic Arts' Mortal Kombat™, Call of Duty™, and more



Dear Son,

It's not that I don't appreciate you taking on a budding video career. Even the toughest grandmothers will break down after three hours of watching James take his first steps. That's why your father and I have decided to buy you the Matrox Rainbow Runner Studio. With this practical upgrade to your PC, you'll be able to edit your home movies into short, memorable moments and then send them over the Internet on YouTube.com. (Notice the word "short", Son.) You'll also be able to grab video images of each other to create digital family photo albums, and video conferences over the Internet. And don't say you'll be too busy playing 3D games on your big screen TV. Dad's wait to see your new "strudged" home videos.

Love, Mom

P.S. You'll enjoy using this Matrox product. It's easy to install. Easy to use. And reliable. And I know exactly what I see in

matrox

<http://www.matrox.com/usa>
1-800-382-5379

WHAT'S NEW

Netscape browser and source code open for free

It is an attempt to create an Internet standard—Netscape Communications leads a battle today by making its Netscape Navigator and Communicator Standard Edition 4.0 software products free for all users. This is a direct response to Microsoft's claims that Gates' group is trying to go far to become Internet Explorer for all others.

This act is designed to encourage users of Netscape's browser and communications products from being adopted by individuals at home, school or at work as their preferred method to the Internet.

While this plan will undoubtedly benefit the average Web user, the other marketing environment to consider is software sales. Netscape's plan to make the source code for the next generation of its highly popular Netscape Communicator client software—expected by the end of the first quarter of 1996—available for free.

The strategy behind this is to gain greater "brand share" in the programming community, trying to build between the creative spirit of the thousands of programmers who can now create enhancements and modern versions of Netscape's programs that are tightly integrated with the browser. This would further accelerate the development and distribution of future versions of Netscape Communicator to business customers and individuals, thereby further solidifying the market for Netscape's software services and Internet business.

Jim Baskette, Netscape's president and chief executive officer, said that "by giving away the source code its future version, we can insure the creative concepts of the entire programming community and that unprecedented level of innovation in the browser market."

Recently, Netscape announced a net loss of US\$10.3 million on revenue of \$13.9 million for the year ending Dec. 31, 1995. The company said a poor fourth-quarter dragged down performance for the year. The company reported a fourth-quarter operating loss of \$40.4 million on a total loss for the quarter including charges of \$84.5 million—\$5.8 million charge for R&D and \$78.6 million charge for other charges.

Positive benefits of 40 GB IDE hard disk drives • Users can still be principal supporters of hard drives to the Consumer PC industry has announced a new generation of high speed, high capacity ATA-33/30/20MB (also direct memory access) 40 GB hard drives.

The new IDE hard drives, with an initial suggested retail price of \$240, are expected to offer 40 GB of new storage for PC users who

incorporate 5 MB 3.5 in. 3 1/2 in. hard disks, analyzed and reported, technology systems in terms of drive performance and also for a timely backup of files. —JL

Contact Editor/Writer for \$200-\$250 US\$ or \$100-\$150 US\$ for more information.

Windows optimizes graphics for Web • Microsoft's new version of Windows 95

optimizes graphics for Web use as a two-part application that optimizes images for use on the Internet.

The first part of the package, WebGraphics Optimizer, is a tool that takes images on a number of formats and optimizes them for use on a Webpage. One of its features is a new color map converter, that allows a user to drag a version of an image into Optimizer and translate it to GIF or JPEG format. The color

palette can be set from copy specifications sent to the Windows Clipboard, pasted into Opt image and then into the "quick and drag" data table for a Web page.

The utility allows images to have a transparent background. On the web, one can adjust the compression and color depth of an image to get the best balance between the file size and image quality. Optimizer also creates



prepare mathematics or Internet applications. The ATA-33/30/20MB technology supports data transfer rates as high as 33 MB/sec and a new doubling of previous drive size. Seek time is 10 ms. The IDE hard drives

When it comes to personal tax software, Hometax is the real deal. Hometax can save you big dollars and ensure that you get the most money back on your return. Now this year is 32-bit technology which gives Hometax actually one look and makes it easier to use than ever. Plus you get more than 3 federal Revenue Council approved forms and real slips right on screen. Together with features like Easy Prep, automatic rule accuracy check and automatic on-line, preparing your own tax return is really easy, quick and accurate!

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Windows 3.1
and
V3 compatible

WHAT'S NEW

Animated images Includes a fully downloadable collection for students of 30 home-grown personal features and an anti-labelling feature.



NetGraphics

to get rid of jingles on storage budget.

The second part of the package is an image organizer called NetGraphics Gallery, which allows users to search by name, category or other criteria. Gallery is like the Internet in that the company's clip art collection is linked with the package. The collection of 2,000 art files includes photographs, images, PhotoCraze images have been optimized by Web art NetGraphics images are stored in a proprietary IPI format. The company claims it retains full copyright and most commercial image characteristics.

NetGraphics II is a suggested retail price of \$99.95.

Global Network Technologies, Tel: 905-775-8888
 819 Sheppard Ave. E.

Group claims help for new models in Ontario • TORONTO One (ON) - The Digital Media Champion Group made up of representatives from various digital media companies in Ontario presented a report in late January touting the importance of the industry in the province of Ontario and calling on the government to help the industry with financial support and policy changes. The report also made some recommendations to the industry itself.

By the year 2000, said the report entitled "Moving to 1998: The digital media industry in Ontario", the global new media industry is expected to be worth about \$500 billion. Ontario has the most active digital media industry in Canada, it said.

Bella Bouché chair of the champion group called the report "an unprecedented effort." It said it has been about a year in preparation and will serve as a launch pad for what is an industry.

"Where Ontario provincial relations were appreciated in the launch of the report. All politicians, the provincial ministers of economic development, trade and tourism, said that supporting the industry will bring growth and jobs to Ontario. Bella Bouché, president since the launch of the industry officer and secretary said the industry will be "Canada's economic and cultural backbone."

While it is a promising field, the digital media industry faces some problems, the report said, and these are the reasons for its recommendations. The group's general focus is strategy, the champion group said. It is

called for efforts to educate investors and identify "angel" people looking for suitable personal investments who might back digital media companies.

The provincial government should assist in creating digital media entrepreneurs on the development of business case and look at tax incentives to support the industry the report said.

Contact: For the full text of the report go to
http://www.oncm.ca/industry_strategy.htm

More powerful enhanced CDs • Calgary based from New Games is producing discs in late January for Spring Entertainment's popular Monkey Island and Beverly Hills Cop IV television series. The first edition will be called "Golden" and will contain a bonus CD-ROM music video and additional profile. The disc should be available by the end of the year.

From New Games' design, electronic music compositions on enhanced CD. The format allows music CDs to also have CD-ROM content, which can be accessed on Mac and PC computers. The company released its first enhanced CD called ORANGE in 1997. This album is a collection of more than 40 minutes



of electronic music, plus a Virtual Air Gallery. The company says both the underground music and the visual album are primarily aimed toward young women from other parts of Canada, the U.S. and Europe. ORANGE is available at major music stores (HMV and Sam's), and independent outlets. —CF

From New Games was established with the help of the Youth Entrepreneurship Program being run by the University of Calgary campus by 1998. If you are an entrepreneur looking for more information about New Games

Design into a new World of Entertainment



Worldwide (Toronto, Ontario and Montreal) CD-ROM

Information, contact them at 416-249-5825 or visit our website at <http://www.nvg.ca>. Or if in Calgary, At: 137 257 Avenue

Canadian Athletics search engine launched • AllNetWeb, one of the top 100 search engines on the Internet, is now



available in a special version focusing on Canada specific content.

Called AllNetWeb Canada, the search engine has the first set of the top 100 AllNetWeb, but also includes more than 10 million pages of Canadian Web content in its index, according to the developers.

The TDS division of Telus, AllNetWeb's region of phone carrier Digital Equipment Corp., developer of the AllNetWeb search engine and AllNetWeb-based Internet services jointly developed the product. —CF

Contact: AllNetWeb Inc.,
<http://www.allnetweb.com>

Details POGO's government publication on the Internet • Ontario Management Board Secretariat has announced a new Internet-based system for selling permitted documents under the Ontario POGO (Public Open Government) Act, which allows customers to search by date and pay for documents through a government website.

Chris Holzman chair of Ontario's Management Board of Cabinet, unveiled the system at the Design Exchange in Toronto. Holzman demonstrated the range of publications available and the ease with which the catalogue can be browsed and items ordered and paid for online by credit card. —CF

HP's all-in-one Officejet 435 does color • In the home and small office market Hewlett-Packard Canada has introduced a multifunctional device that serves as a color printer, fax machine, scanner and copier.

The Officejet 435 with print speed, less than 1 page, color in 2.5 sec. It will scan at up to 1,200 dpi and supports both 3.5-inch and 5-inch floppy diskettes. The fax feature includes speed dialing, redaction memory that will hold up to 10 pages and a 144 Kbps modem.

The suggested retail price for the Officejet 435 is \$499 which includes Corel PaintShop 3.0 and Corel Graphics 10 software. —CF

Contact: HP Canada, Tel: 800-367-5887

TTC heads into 20th anniversary • TORONTO (TTC) - Toronto's the Toronto Transit Commission (TTC) network of subway, streetcars, buses, and light rail (LRT) systems can now check their own city's TTC phone numbers on the World Wide Web.

The TTC has made the information available on the World Wide Web at <http://www.ttc.toronto.on.ca>, the City of

Toronto's site. Over 100,000, the TTC is planning to add more information and maps as well as other information.

Check out the Olympics on the Canadian Olympic site • The Canadian Broadcasting Corp. and the Olympic group of regional phone carriers are increasing Canada's performance at this year's Winter Olympic Games on the Web. The Canadian Olympic Web site has launched Feb 8 and will operate until March 8.

Contact: Communications
<http://www.cbc.ca/olympic/canada>

Army Dominion comes home • Being more affordable than its three-digit prices and creative product packages going into home entertainment, Army Dominion (the artist label company) has launched four lines of products aimed at the home.

The Army (Domestic) Dominion includes printing and the label blank disc work with many other products, and allow a person to make custom-designed printing, cards, gift tags, etc. One product, the White Card Victory Pack, includes 20 cards, 16 envelopes along with American Greetings and design software. It has a suggested retail price of US\$29.99 while a 16-pack with 16 envelopes costs \$24.99.

The other line of home products is called the Army Kids line, aimed at 4-12 year-olds. It includes applications called Army Kids Printmaker, which lets in design projects, printing cards, awards, 10 cards, etc. on just-out-the-box. The Printmaker is Software \$4



has a suggested retail price of US\$29.99, while a 16-pack with 16 cards costs \$24.99.

At prices that Canadian prices were not available but for products should be available now as major computer retail chains. —CF

Contact: Army Dominion in Canada
 Tel: 800-481-5275

Improved Project 95 released • Microsoft quickly added a major new revision of MS Project 95 at the end of 1997 following its global rollout last year. Two million MS Project users are completely redesigned product.

According to John Gorman product manager for Project 95 in Canada, the

Dedicated Internet Access. (Cisco Router included)

Get *Dedicated Access* from Netcom *Business Services*.
We'll *wave the set up fee* (up to \$1000) and throw in the *hardware*.

Dedicated access means you're online all the time. Instant access. No waiting for E-mail. No dial-up. No line-up. And now you can save up to \$1,000 on set up fees with dedicated access from Netcom, one of North America's largest independent ISPs.

Access Options: We offer dedicated access at 64Kbps, 128Kbps and up to T1 access (1,544Kbps).

All the Hardware: Netcom also supplies you the necessary hardware, including industry leading Cisco Routers.

Complete Solutions: With one of our NETConnect bundles you also get a Domain Name, multiple E-mail accounts

and access to the Netcom Business Centre, a powerful online tool to manage your account. Netcom gives you the fastest, most reliable, highest quality network in Canada. Just ask us about our network reliability, quality, and redundancy and our 7x24 hour network monitoring. Or ask any one of the thousands of businesses who rely on Netcom every day. Once you've asked them, call us. And don't forget you'll save hundreds of dollars on the set up fee.*

Call Now! You get more out of the Net with Netcom. Because we make the Net work for you.

NETConnect 64	
<ul style="list-style-type: none">• 24x7 dedicated point-to-point service• Cisco T3E router• Domain Name Service	<ul style="list-style-type: none">• 20 E-mail boxes at your domain• Management tools via NETCOM Business Centre
Call us 1.857.8617	\$325.00 /mo

NETConnect 128	
<ul style="list-style-type: none">• 24x7 dedicated point-to-point service• Cisco T3E router• Domain Name Service	<ul style="list-style-type: none">• 20 E-mail boxes at your domain• Management tools via NETCOM Business Centre
Call us 1.457.8617	\$525.00 /mo

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1.888.457.8617

Netcom
Canada

www.netcom.ca

We Make The Net Work For You.

WHAT'S NEW

Continued from page 18

ified. The pen interface proved easier to use than a traditional keyboard by automatics moving space into place. During the flight, a commander kept a flystick strapped to his thigh for easy access to "Flysticks, a Windows-based application that allowed the command to visualize the aircraft's location and orientation and identify a predicted turbulence point.

According to Geoff Walker, vice president of marketing for Hughes Precision Systems, "Once again, tablet PCs are being used in a working environment that requires the spot information. The innovative flystick pen tablet meets the computing needs of users in dynamic situations where laptops are cumbersome and inconvenient."

In particular, NASA is looking at mobile PCs to give pilots easier access to critical data in real time and on mobile graphic display data, so more decisions can be made by the crew rather than ground control.—JL

Contact: Tanya Ma, 800-831-9180
http://www.hps.com

Technica introduces Phaser 340 color printer • Technica has announced a new high-quality color workgroup printer, the Phaser 340. The 340 model is the latest in a popular line of "solid ink" printers from Technica, which are marketed like they are powdered ink, making liquid droplets onto paper and inks melt and which harden by cooling, rather than drying by the evapora-

tion of a solvent.

The Phaser 340 comes with an integral Ethernet card for easy attachment to an office LAN, and offers 800 dpi print resolution. Its print engine is powered by a 300-mlb BNC processor, allowing full-color page printing at up to 18 pages (pages per minute), faster than comparable color inkjet or laser printers.

The Phaser 340 is much stronger in response to issues of printer supply costs, according to Technica. A typical Phaser 340 color page uses only about a nickel to print, compared 18 to 30 cents for a color page created using other print technologies, such as color laser or jetprint.

The new breed "solid ink" cartridges of the Phaser 340 are so transparent that Technica literally gives away black cartridges to its customers. According to Jean Roman, vice president of marketing for Technica, "We're the color experts in the focus on color printers that kept the transition to new technologies printing. With the black ink, our color printers are so real and economical that virtually anyone can make the transition to color."

The Phaser 340's unique ink is compatible with virtually any paper without the drying and coating problems of dyes, or requirements for specially coated laser papers. According to Ma, it is a matter of dropping color solid ink cartridges into the appropriate cartridge bin, loading in the previous cartridge to simply make sure the unit is dispensing it.

The Phaser 340 incorporates TechniColor and Color Enhancement Technology to ensure solid smooth color.

At the same time, it announced the new Phaser 340, Technica achieved a 38 percent price drop at its Phaser 340 800 dpi color printer. The suggested list price for the Phaser 340 is \$2,999, and the new price for the Phaser 340 is now \$1,995.—JJ

Contact: Technica, 800-831-9180 or
1-813-347-8000
http://www.technica.com/Phaser

Apple opens off-Client, runs 100 jobs • CORVIDIO Ltd. (Mojito-Apple Computer, Inc.) will lay off 100 workers as a result of its Client subsidiary and sales software sales to Client. Client now becomes a company called Clientnet Inc. and is left with the Clientnet Pro line of desktop products.

The move is part of a restructuring of Apple designed to cut costs. Apple will continue all sales of its line of 100 and its operating system and will support and continue to develop Clientnet, its largest and most profitable product. A price release contained no further comments from Apple at the time, so was there a statement from Apple's acting chief, Steve Jobs.

IBM's home networking for business • 2004.85 M1 (M1)—The "new" home— which allows direct applications and features to be controlled by a single master—has been available for months. But for a price, now IBM has introduced Home Director. Clientnet Inc. is about to bring the technology to its home builders line, approximately 100 to 150 home builders line, approximately.

The company says a residence using IBM's

Home Director Professional "provides an owner with an integrated link between computers, available home systems such as security lighting and HVAC systems."

IBM expects that its open architecture can "provide the foundation for future capabilities in the distributed home environment. PC, local area network (LAN), security and other energy management." The company also has through the integration of its central applications and integrated wiring, a "flexible" of home entertainment appliances, PCs, security systems and lights can be created. Initial implementation of Home Director Professional will contain new home features and updates will be in the spring, most of them available by the summer.

The system will also allow customers to monitor and control remote home systems remotely via the Internet.

Fujitsu expands world's smallest computer • FUJITSU Japan (M1)—Fujitsu Ltd. has unveiled a portable computer that is closer to the world's smallest and lightest laptop available. The unit is designed to run with mobile computers and will be marketed from early February.

The unit, called the Fujitsu ES-40, is 140 mm wide, 75 mm thick and 1.47 cm high, and weighs just 80 g. The monochrome monitor has a resolution of 400 dpi and measures to fit a personal computer via a PC-card slot. In addition to carrying data, the PC-card also provides power to the monitor, ensuring the need for an additional power source.

Continued on page 21

Nothing comes closer to reality



In our business, image is everything. And one ability is to display your images as if they didn't exist. The Hitachi SuperScan 37" and 45" monitors have a quality image and reliability drawing from the heritage of SuperScan monitors that professionals use. And we professionally upgrade their equipment. The one constant they don't have to replace is their Hitachi SuperScan monitor. A high-resolution color image requires high-end hardware, a Hitachi SuperScan CRT, a dot pitch as low as 0.25 mm and a 3-year warranty all together the source of one of your most important investments. Call 1-800-898-4444 or visit our website at www.hitachi-usa.com for further details.

Model Number	Screen Size	Resolution	Dot Pitch	Warranty
SuperScan 37"	37" (945mm)	1024x768	0.25mm	3 years
SuperScan 45"	45" (1143mm)	1280x1024	0.25mm	3 years
SuperScan 37"	37" (945mm)	1024x768	0.25mm	3 years
SuperScan 45"	45" (1143mm)	1280x1024	0.25mm	3 years
SuperScan 37"	37" (945mm)	1024x768	0.25mm	3 years
SuperScan 45"	45" (1143mm)	1280x1024	0.25mm	3 years

SuperScan

HITACHI

Long distance video phone for the price of an internet connection!



- Talk for hours to relatives overseas
- Show Grandma your baby's first steps
- See your kid's new haircut - at college
- Show exciting new promotions to clients
- Meet internet friends - without the guess work

**60 DAY
ON-THE-SPOT
REPLACEMENT
GUARANTY**



Zoltrix Face 2 Face
Video Conference kit includes:

- Toshiba video camera
- BT-848 video capture kit
- Plantronics head set
- AC adaptor
- Cables and manual

- VPOffhome professional software



One Kh

\$199

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WHAT'S NEW

Continued from page 16

At maximum resolution, the scanner takes about 2.5 seconds to scan an A4 size (approximate) piece of sheet document with Fujitsu.

The device will be available from early February and comes at a recommended retail price of \$949.95.

Yahoo Travel adds National Geographic • SANTA CLARA, Calif. (ENR)—After its acquisition from Interlink, Inc., Yahoo! National Geographic has never been so wide. The venerable journal, long considered the

World standards online • MI—(ENR) which calls itself "a national answer to global standards" offers a comprehensive online database of international standards. During January, the enhanced service provided up-to-date reference data on more than 260,000 standards posted from over 400 national, regional and international standards developers in 160. At other times, the

books version, which offers a bibliographic search database is free.

www.nstn.com

Views of the solar system • MI—This Web site presents a novel multimedia adventure consisting of the splendors of the Sun, planets, moons, comets, asteroids, and more.

You can discover the latest scientific information as you study the history of space exploration, rocky early intercomets, space missions, spacecraft. Through a vast archive of photographs, videos, facts, text, graphics and videos, available in English, Spanish and Portuguese.

<http://www.nasa.gov> is a single starting for space data.



the family destination to all telephonic services. Alexander Graham Bell has now agreed to share its extensive cultural content online, to the travel service at Yahoo.

Yahoo said that subject using its Yahoo Travel service have immediate access to the National Geographic Traveler magazine, which now reaches more than 75 million in 40 cities guide people and their culture, travel and present attractions in the area.

The National Geographic content will be linked through a "National Finder" and posted in many of Yahoo's city categories. Other steps will be added in the coming weeks, the firm said.

Yahoo Travel offers information on more than 400 travel destinations around the world. Information is currently available in travel based on special interests and both low geographical and commercial starting services, currency exchange rates in 180 countries, weather and climate. The service is a full service travel agency for booking travel and other arrangements, on travel and other areas that might need advice from users.

Contact: Yahoo Travel <http://travel.yahoo.com>

What's here is written and compiled by Jeff Jones, Keith Langley Smith, David Jacobs and Megan Johnson.

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NEWS

Developers say Thamescam sets new standard

BY SYLVIA DENNIS

EDMONTON (August 1997)—Livingston has created a new (or, for most) response time on the River Thames in the heart of London. Like many other businesses around the world, the Web site at <http://www.livingston.ca>, in recognition of a recent pandemic, has the Thamescam service able to set a new standard of quality in online video.

According to Bryan Gossell, a spokesperson for Livingston, the company believes the time taken of "Virtual Thamescam" is what the Livingston Thamescam and its Web site provide and for its particular interest in services.

The launch of the Livingston service that the famous shape of "River Bridge" and the famous London are going live in the world today the camera which is based at the Imperial War Museum's famous "Museum of the River Thames" below.

According to Livingston, the camera is now showing live images of its state. Thames, through panoramic—single live from bridge and the river itself in the river, taking on the full length of the sectioned ship and continuing towards London Bridge and the City City area in the past.

Thamescam is a service launched by the Imperial War Museum and the Livingston's construction team agency in London. According to Gossell, while there are many cameras around the world linked to the Internet, including some on London, there has been nothing like this before.

"Very few Internet cameras are live in the true sense of the word—showing images which change as you watch—and many people watching screens to display low-quality pictures or carry live or no information about the place they show," he said.

"We believe the Livingston Thamescam will set a new standard for Webcams quality and performance. Not only can we live-streaming and live images from a world famous location of historical interest, but our camera can move through virtually the whole 360-degree panoramic view, and its powerful zoom lens gives almost unlimited possibilities for interesting sights," he said.

"The pages are deliberately simple to make downloading as quick as possible. We've included many other features and links such as online weather and an official Thamescam, highlighting London attractions and events on and around the Thames. We expect that the virtual camera at the Livingston Thamescam will be used around the world," he said.

Gossell went on to say that the concept of live streaming has already proved remarkably popular with Internet users, and could now become much more as increasing numbers of people connected to the Web.



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THE ABC'S OF DVD

Adding DVD to your computer
Continued from page 26

company calls Dynamic Embedded Revolution. That the D5000 is also known as the D5000 Unit.

The D5000 is a pretty piece of work and comes well packaged. To get the best performance you will need Windows 95 (or Windows 98) which allows you to set drive letter(s) allocated to the DVD drive. Otherwise the system requirements are



quite easy to meet: a 386 MHz Pentium PC, 16 MB RAM, 5 MB hard drive space to install D5000, graphics adapter with 2 MB RAM (minimum 800x600 or 1024 colors but 16 bit color—16,800 colors—support is also required), a PCI slot, and a standard IDE connection to the motherboard (this will work with IDE4 support recommended), an open drive bay (a brand name computer card—IDE4, in fact, recommended) and Windows 95.

The kit installed extremely easily although the real trouble (I) with the PC did that the motherboard installed to should work in its both machines, every thing is probably except that in the case the hardware kit contains a video controller I work to the drive bay without jiggling the existing PCI-ROM. Also setting up the drive is so easy as it is the existing LSI ROM card so difficulty in the drive but when in the D5000 it was placed in simply connect the CD-ROM and use the DVD drive. There is no real need to install the digital CD-ROM anyway.

Once up and running we were very pleased with the quality of the video. The kit comes with two DVD games: the satellite side Wing Commander IV and the excellent "Cave".

However, to test the video we ran the movie, The Hunt, starring Jim Carrey. The second best video we saw during this time as a few inches away from the screen, dynamic Embedded Revolution is a picture enhancement technology Creative Labs has devised to enable the playback of high-level motion video with smoother images through the use of interpolation filters and a procedure called double scanning. This process allows the 60-frames per second refresh rate and helps avoid unwanted artifacts.

Now this means you need not your refresh rate to 60 as you will see what is called "combining" where DVD drives are not an up to running smoothly you can see horizontal lines in high-contrast areas of the screen—especially where there is quick movement. Because motion very well and where properly configured the images were perfect.

The lack of the PCI card does not have

Continued on page 47

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If you're on the lookout for a new PC and didn't get a chance to say anything this past holiday season, worry. Whether you want a low PC to sit gleaming in a child's room, for your home or office, the PCs we review this month are very capable, fully loaded and ready for just about anything you could throw them at.

My, how things have
changed...

It's been three months since our last system survey, and it's quite evident that to see the many changes that can take place in such a short time. And compared to a year ago the changes are even more dramatic.

Where we did our high-end system survey in February 1997, the top-of-the-line machines featured 200 MHz Pentium processors, 32 MB of RAM, video cards with 2 MB of 4 MB onboard hard drives with average capacities of 1.2 GB, and CD-ROM drives toping out at 12x speeds. Systems were pretty much standard at 33 MHz with the 5400x series about twice the market.

That set of features is now common for entry-level machines. In fact, as far as the Pentium family is concerned, the only model that still will be making its 233 MHz Pentium II money to move up from there, you'd have to go to the Pentium II last 10—which came in 133 MHz.

Still, changes, the high end Intel's? At the end of January, Intel announced its 133 MHz Pentium II processor, and said that about a dozen manufacturers would have computers for sale immediately based on the new processor.

Compared to 333 MHz at the top end, the 133 MHz is back at the middle end as powered by every level Pentium II CPU. But they have changed from last time, compared to what would have been considered entry-level—no high end for that matter—two years ago.

As we've mentioned, the processors are the stars of the Pentium II family with a clock speed of 233 MHz. With 544 pins, they go low configurations with 4 MB of RAM and high-end configurations with 16 MB. Video cards with 16 or 32 MB of RAM are common, even hard drives with capacities of 1.2 GB are available, and the CD-ROM drive is now available at 2400 rpm with the new 12x family just now starting to make its way into the marketplace. Today's machines are standard at 5400x—anything slower is rare. All that for

just over \$1000. The amazing part is that in the span of 11 months, systems that were considered high end three years ago are now sold for less.

Is your system obsolete?

But before you experience another bout of CPU linearity syndrome, let me thing are always a replacement once computers are not obsolete just because there are newer, faster products on the market.

In fact, your computer will always be good enough as long as it meets your own needs and helps you get your work done. Why spend a few thousand dollars on a new machine every other year if the only time you really use the thing is to wait out how much money you owe the government for that year?

By the time a computer that was defined as a high-end system a year ago is sold as a used machine, even the most demanding applications (except those that are not) will be that cheap. The question we asked the month ago is a good choice for that time—buyers or someone looking to upgrade an old system or perhaps to add a second system to the home or office.

If it seems like you're getting a lot more for your money than you were a year ago, that's because you are. It's amazing to see what \$2000 will buy you today compared to last year. And because of that, now is without a doubt the best time to get a new PC to replace an old one. But before you start buying a new PC, let's look at the prices of the old ones. First, they could benefit from having two systems in the house. This could especially be true if they are in the household. A few years ago it was quite difficult to afford two

machines.

I had to handle the level games and applications. Today's machines...

On the hardware

We are currently awaiting a few lines expected to make a few appearances sometime in 1998. One example is the new line of Pentium II processors. As we've already mentioned, Intel just announced the 133 MHz processor and machines based on it should be available soon. They will have 544 pins, 344 MHz and just have 400 MHz Pentium II processors. A new chipset (not Intel, the 440BX, a 32-bit) is expected to come in the first half of '98.

At long last, the speeds of 800 MHz will be officially supported by the processor giant, something that is possible with today's math, although using the 486.5 chipset, although not supported by Intel.

As far as systems as a whole are concerned, we will be using the new line of 133 MHz Pentium II, making it way after nearly every computer below 1 GHz. And video cards are already available from nearly every major player in the market, although the operating system support is still a few months away. Getting the price of Windows 95 and 98 5.0 in the meantime, their prices are still high, but still offer a significant improvement. It's not at all that considering the fact that they cost nothing more than their PC counterparts, you may as well get your new computer in anticipation of

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TCP TEST LABS

Perimeter II 333 MHz

continued from page 32

Windows 95's eternal place

DVD drives are also expected to reach affordable prices later this year. Some units have already popped on the marketplace and brought us the same old bundle dollars, while others are holding out for prices no one can claim to be the \$200 mark.

The prices of CD recorders (CD-Rs) drives have also come down greatly over the past year, and are expected to drop even further during '96. For many CD-R and CD-RW (CD-rewritable) or the backup methods of choice, CD-R drives can be purchased for as little as \$40 for an 8X model, while a pack of 10 starts, drop an easily available to \$30.

CD-Rs also are still rather expensive at roughly \$20 each, but when you consider the fact that you can reuse them over and over, it's not as bad. The CD-RW drives by most manufacturers are still starting to appear, and, surprisingly, they don't cost much more (if any) long of all that, despite CD-R drives.

Other storage methods such as 16-120 drives and Zip do not have come down in price and are, in many ways, still out of reach for many consumers. An external Zip drive can be purchased for as little as \$120, but the newer 16-120 drives will cost at least \$160 each. It is history has proven over and over again, no matter what it costs today, it will undoubtedly cost less tomorrow.

Our tests

We added revisions to test an on-chip/flash based on 750 MHz Pentium III processors and 64 MB of RAM. All other components were left up to the OEM, but we specified that the external system cost should be kept to \$1,500 or less for marketing purposes.

We reviewed a good line of machines that will offer insights and weaknesses. However, overall, each machine had enough desirable qualities to satisfy most users. As usual, we put the BAFCo System III2000 through its paces on all machines, with a few modifications to run in a simulation of 1,024x768 at a color set of 16-bit display.

The contenders

Besides these and up why we didn't include these machines is that manufacturers in a lot of cases. There are a number of systems with a manufacturer's machine doesn't show up in any given list and. Manufacturers they do

have a model in stock that fits our request. They may be in the middle of a model change and don't want to test a machine that would be no longer available when the report is published. Or they may have their own private reasons for not wanting to participate. However, we strive for material and flags beyond PC makers by external entities to tell us. This month we accept and report on the following:

Asure



One of the latest system options is the Asure 333, a machine from Asure. This Perimeter II machine has everything you would expect in a complete system.

The Perimeter II processor runs on a flexible motherboard with the i486LX chipset. Total RAM is 32 MB (expandable to 64 MB) as we requested, while the video subsystem consists of a video card with 32 MB VRAM. CD-ROM drive with 1 MB cache. A Western Digital 4.5 GB drive with Ultra DMA support is used for storage, while a Dite CD-RW drive from Lite-On also handles multimedia applications. A Sanyo Hitachi 1600mAh is used for connecting with the outside world with RS-485 technology.

As for performance part, the machine went on any speed tests in its own video card, but it does maintain a good price/performance ratio and comes with a complete parts and labor warranty.

Compaq



The second latest system is the Compaq 333, a machine from Compaq's 333 MHz line.

The Compaq system has a dual set of good components, which helped it achieve an average of 2.47 on the BAFCo test. While the Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

part of the system. As for the multimedia capabilities, the ETC 333 MHz drive and a Sanyo Hitachi 1600mAh is used for connecting with the outside world with RS-485 technology. The Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

Compaq



One of the latest machines to come in under \$2,000 this month was the Compaq system from ETC.

The Perimeter II processor is backed by 64 MB of high-speed RAM. The system also has a dual set of good components, which helped it achieve an average of 2.47 on the BAFCo test. While the Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

Multimedia components in the system consist of an ETC 333 MHz drive and a Sanyo Hitachi 1600mAh is used for connecting with the outside world with RS-485 technology. The Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

Proof at \$1,999 with a three-year parts and labor warranty the Compaq system is an attractive option for anyone looking for a first computer or an upgrade from a first computer.

Perimeter



The Perimeter 333 of computers from Compaq has passed through our lab on occasion. It has a dual set of good components, which helped it achieve an average of 2.47 on the BAFCo test. While the Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

and good overall value in performance.

The system we tested this month is an exception, making one of the latest technology the industry has to offer while keeping an impressive price/performance ratio. The system consists of a 333 MHz Perimeter II processor.

Perimeter



Coming in at less than \$2,000, the Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

Standard line within the system is the Perimeter II 333 MHz processor and 64 MB of RAM. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also used for connecting with the outside world with RS-485 technology. The Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

On the software side of things, you get the Microsoft Works Collection, which includes Works 4.0, Money, Home Banking, Magic Word, Fax, Creating Wordpages, Run III, and the 386 Interactive CD-ROM. The Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

Perimeter



Complete. In doing the Perimeter II 333 MHz processor and 64 MB of RAM are standard components in the machine. The Hitachi 1600mAh is also used with 16 MB of high-speed VRAM (cache) can take a fair share of the glory for the overall high speed this machine was able to accomplish. The popular Quantum Fireball 4.5 GB hard drive with UDMA support is also

Just and should please anyone looking for a new Perimeter II machine with all the bells and whistles.

We must off we leave the Perimeter II 333 MHz processor and 64 MB of RAM, as we required all of the other components.

Continued on page 17



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PENTIUM II @ 233 MHz SURVEY

[illegible]

Notes: All are two-tailed tests. χ^2 tests are based on the null hypothesis of no difference between the two groups. t tests are based on the null hypothesis of no difference between the two groups. F tests are based on the null hypothesis of no difference between the two groups.

[illegible]

PENTIUM II @ 233 MHz SURVEY



Best Overall Value



Best Performance

Best Price

	Pentium II 233 MHz Best Overall Value	Pentium II 233 MHz Best Multimedia	Pentium II 233 MHz Best Performance	Pentium II 233 MHz Best Price	Pentium II 233 MHz Best Price
Processor	Pentium II 233 MHz	Pentium II 233 MHz	Pentium II 233 MHz	Pentium II 233 MHz	Pentium II 233 MHz
Model	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Video card	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000
Audio	None	None	None	None	None
Sound card	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000	3Dfx Voodoo 2 1000
Modem	None	None	None	None	None
CD-ROM drive	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Hard drive	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Keyboard	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Mouse	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Case	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Power supply	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Monitor	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Speakers	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
System unit	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
System price	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA
Warranty (parts, labor, parts)	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA	440 486 050AA

Note: All prices are in Canadian dollars and are estimated prices. Prices subject to change without notice.

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8W Amplified Speakers	8W Amplified Speakers
32 K Fax Modem	32 K Fax Modem
3.5" Floppy Disk Drive	3.5" Floppy Disk Drive
Keyboard - Mouse Pad	Keyboard - Mouse
Multimedia Case 230W	ATX Multimedia Case
PEN 166MMX.....\$889	PII 233.....\$1659
PEN 200MMX.....\$929	PII 266.....\$1799
PEN 233MMX.....\$1019	PII 300.....\$1869
AMD K6 200.....\$929	PII 333.....\$2379
AMD K6 233.....\$969	
CYRIX M2 200.....\$849	
CYRIX M2 233.....\$929	

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*** All prices are cash discounts.

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Onix 16bit	125
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17" VGA	189
17" ACTR	329
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20" Viewmaster	1599

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Asus TX97E	189
Toshiba TX	185
Gateway TX	199

Hard Disk

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Samsung 2.4	209
Figaro 3.4	229
Figaro 3.2	219
Quantum 3.2	219
Quantum 4.3	329
Quantum 6.4	589
WDP 3.2	229
Maxtor 8.4	549

Storage

Settings Inc. 250	125
Settings Inc. 400	189
Settings Inc. 500	219
Settings Inc. 775	275
Philo 1.5 120	199
HP Tape Backup 225	

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3COM 16160 ABC	65
3Com 16160 ABC	65
3Com 16160 ABC	75
3Com 16160 ABC	75
3Com 16160 ABC	75
3Com 16160 ABC	75
3Com 16160 ABC	75
3Com 16160 ABC	75

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3Com 16160 ABC	125
3Com 16160 ABC	125
3Com 16160 ABC	125
3Com 16160 ABC	125
3Com 16160 ABC	125

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HP 400C	359
HP 400C	359
HP 400C	359
HP 400C	359
HP 400C	359
HP 400C	359
HP 400C	359
HP 400C	359

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Chrom Light	39
Trident 37	
3D Viper 2400	25
ATI 3D Rage	21
ATI 3D Rage	21
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TCP TEST LABS

Position II @ 233 MHz

Continued from page 37

a one-year parts and labor warranty. Although it is only equipped with 32 MB of SDRAM and additional 32 MB installed at today's price would cost you a mere \$100.

Price: Computers bearing the Play PC name come to price of \$795.



to from Sennack Computer Inc. This month the system we tested was equipped with a great deal of good quality components, which will most likely cost its maker not selling

Based on the requested Position II 233 MHz processor and 64 MB of SDRAM this machine comes with a Supermicro motherboard with the 440LX chipset, a Quantum hard drive (3.2 GB fast drive) and a 15.5" display panel and a Maxtor 344 CD-RW drive. At \$500, however, 128 MB PC memory and a 3.5" notebook is used as display, but we, while a Sound Blaster 16V40 sound card takes care of the high quality sound reproduction. A

USB-to-serial 56Kbps modem/extension module on the inside package which is priced at \$23.95 and comes with a two-year parts and labor warranty.

It should be noted that this system was tested on a resolution of 800x600 at 144Hz, also that a qualification was considered at the next highest resolution of 1,024x768, at which all other machines were tested. As a result, the machine had the highest overall score, but didn't win the title.

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Editor's



At small, IBM's new Dimension 233 comes with top quality components quite well on the benchmarks and is priced under \$2,000. The machine we tested the most common of a 233 MHz Pentium III processor at 144 Hz of SDRAM, an ATI GraphicsX AGP card with 4 MB of SDRAM onboard, a Sound Blaster 16V40 sound card, a Creative Labs 24x CD-ROM drive and a Quantum 4.0 GB SDRAM hard drive and a 15.5" 1024x768 resolution 8 pin of 1600V speakers and a 43" panel with 50 MHz floating Compton's 1024x768 resolution on the part of the system. Priced at \$1,999 with a registered two-year parts and two-year labor warranty, this system is hard to beat.

Editor's Choices

Performance: IBM System 233

This month's performance award goes to IBM for its

multitasking options

equipped with

excellent storage

options. It managed

to finish eight to

the top three in

cost to use performance. It has a

reputable name and a memory hard drive

and an L2-100 SuperDisk drive put

to make the machine all the more

attractive. Without a doubt, this is an

best system and would make a great PC

for both business or power frequency use.



Value/performance: IBM

Coming out with an overall score of 259 on the benchmarks and with a price tag of \$2,099, this machine is a clear winner. Using nothing but the best components from the Fortwin 233 with 4 MB in the new ThinkPad 233 CD-ROM drive, this system leaves you wanting nothing.

Overall: IBM Dimension 233

There's no doubt whatsoever that the Dimension 233 from IBM is the best overall value in this month's survey. It features excellent benchmark components and comes with MS Office 95, which is a significant value. To top it off, it achieved an impressive score on our benchmark tests. What more could you want? ☐

FISTFUL OF GRAPHICS

Graphics tools for Web page design

BY LINDA RICHARDS

The Internet is awash with graphics tools that promise to do everything from expediting page layouts to choosing colour bands. A variable size of choice, and such a cornucopia seems only greater when held in the palm. The fact is, however, that you don't really need an Internet tool to create your tool. Most of us have a mouse that handles the job very nicely. However, if we're doing any kind of creative or experimental web graphics for the Web, we do need tools that work and work well.

Like a fish without a laptop

While almost every software developer will tell you their graphics tool is the one you can't live without, there are actually very few pieces of software that will cause you to want something if you don't own them. In fact, I have only one such recommendation.

And I don't you know that "best" was coming, right? It's there, for a very low price, set to take you that interestingly to make Internet graphics without there is the making tool without exception: you can do it, but your hands will feel like fish.

Let's look at some of those essential and nearly essential software packages and see what's in store about them.

Adobe Photoshop 4.0

Platform: Microsoft Windows 95/NT
System requirements: Macintosh: 48600 or greater processor in Power Macintosh; Mac OS 7.1 or later; 16 MB RAM; 20 MB available hard disk space; VGA or higher resolution monitor; CD-ROM drive
System requirements: Windows: 486 or greater processor; 16MB RAM; 20 MB available hard disk space; VGA or higher resolution monitor; CD-ROM drive.
usa.adobe.com



The versatility of the new Photoshop 4.0 for many reasons—the fish graphic is a simple one.

Almost every type of art or the canvas will have Adobe Photoshop in the top-end for very good reasons. Photoshop is a full-featured design tool that is a real powerhouse. You can get pretty rich with it, but it's a lot more if you like fish. There are other ways to develop Web graphics, but it's a lot less work if you have Photoshop.

Photoshop does more for Web graphics than just about any other software package going. All aspects of preparing a graphic for the World Wide Web can be handled efficiently in Photoshop. Many customers ship with a graphic for Photoshop as you can see, the every single of your Web production is the program.

The last word: Photoshop is a very option-

based software package and thus presents the new user with a hefty learning curve. The new Photoshop user can expect to invest some serious time in learning the program and all that is in the do. However, it's not always the best of the available investment of necessary control

your hardware setup for a while to make to pay for Photoshop. Do you really need that 16MB CD-ROM drive? That shiny new monitor? I don't think so. Save your funds and spring for the big choice of design packages, because it takes more than a couple of fish.

Web's Power Tools 3

Platform: Microsoft Windows 95/NT
System requirements: Microsoft 4 and later; optional: mainly support to Internet Explorer address bar; Microsoft Word 6.0 or greater with web capabilities.

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Microsoft's Pilot-like PalmPC

Microsoft is in the palm computer market. After more than a year of looking seriously while sales of Microsoft's Palm Pilot handwriting-based pocket computer skyrocketed to more than one million units, while systems based on Windows CE barely edged half that number, Microsoft has applied its "pressure and control" philosophy to the Pilot.

It has released the idea that there is a large market for Internet keyboard-less handheld computers and extent of the capabilities of the Windows CE 2.0 operating system to be able to operate like a Palm Pilot. The result is what Microsoft calls the Palm PC. It is same but has not embodied it to Microsoft's Palm Computing subsidiary which is apparently very skilled at that. The computing giant from Redmond, Wash., has adopted a more or less "no touch" model.

The Palm PC appears to be a direct attack on the features of the Palm Pilot and standard Windows CE 2.0 systems. To start with, it looks a whole lot like a Palm Pilot and, at a casual glance, you might be tempted to see looking like two machines. Like the Palm Pilot, it will do handwriting recognition and allow for the use of a docking cradle to synchronize data between itself and a desktop PC. But there where the similarity stops. Once you get behind the screen, the speed is all Windows CE. It runs a Java-like application for text processing, comes with Pocket Outlook and provides support for about a dozen of its on-board applications. Microsoft is willing to compare hardware makers as the company has done with the Windows CE systems that preceded it. As the Palm PC launch in late April in January, some manufacturers continue to produce palm computers based on the specification including Philips, Samsung and Casio. At press time, more publications were reporting that manufacturers were expected shortly from HP and NEC.

The one thing that has become clear is that the Palm PC will be the the standard for Windows CE devices for with prices for basic 4 MB systems now in at around US\$400. It is also not clear whether they will also add additional value when they launch their own Windows CE devices, but it is likely that others at "Com" will be looking hard at what happens to their Palm Pilot and Palm PCs and shipping in volume. —Guy W. Hwang

Two paths to Windows CE 2.0 Continued from page 40

It comes from the 386/5 but perhaps 16 MB of RAM, a color display capable of showing 256 colors on at high-resolution screen and a voice-recorder feature with a built-in voice phone and microcompression engine developed by ST.

In addition, the model functions on-board the 386/5 processor support for binary and other instructions. It will be HP appears to have specified its keyboard problems by using a large and wide-spaced keyboard, and has included "quick-view" keys for easy access to frequently used applications.

While it has not gone as far as including a VGA cable in the package, the 386/5 does

allow for the attachment of an optional "VGA-out card" for enhanced performance. HP says it provides up to 800x600 pixel resolution for full-color, full-size VGA output of Microsoft PowerPoint presentations or Excel spreadsheets.

The next arrival at the store was going to prove, so expect a detailed evaluation of the system next month. —G



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BusinessWeek June 1998

Development firms used and reuse email and website HTML and database software in a virtual mass service (in the Internet). Notes from Canada is an extension of Electric Mail's local area network (LAN) gateway service for Notes. The company said it works through an industry telephone connection in an Internet service provider (ISP).

Contact: TechLink & Mail Inc.
info@techlink.ca

Microsoft Premier to get 9500-based data transfer

PARSONS (PA) (905)-884-1000. Canada Inc. of Management Inc. announced a ConnectDirect (CD) client in Vancouver, that it will add to MYOB OFFICE data transfer capability to MYOB Premier. The company's client was accounting software only but the client allows online accounting data to be transferred to Microsoft Word and Excel and Corel Corp.'s WordPerfect with a single mouse click, BestWare claimed. This can be used for, for example, generating bank letters from lists of customer accounts generated by the accounting package.

Contact: BestWare Canada Inc. (905)-884-1000

Mac software buys about the law

TOBSON (TO) (905)-707-1111. Current Software

Inc. has announced Another Attorney Pro, version 1.0, in the Macintosh. The case management software is an extension of Carol & Queen's existing Another Attorney package. Working with the company's Another Team software, the new release handles shared client file information consisting of shared scheduling, standard contract management, and group scheduling.

Contact: David Law (905)-707-1111

Microsoft lights up Toronto not work, status did turn

TOBSON (TO) (905)-707-1111. The report of local telephone companies in Canada, Canada-based Microsoft Communications Group Inc. incorporated as Microsoft network by placing of two local telephone calls over the network.

The call to the Metropolitan Toronto Board of Trade and to the cellular telephone of TeleSoft's central office (air-ground) and ground managers, David Thorne, vice the company's (in public) move toward entering the local telephone service business, which also developed to compete on the line.

Parsons and Microsoft plans to test its local telephone services with customers in February and soon Microsoft launch local phone service to competitors with this Canada.

To provide that and other services on a single, integrated, using a network of optical fibre, the standard price of which runs through a telephone network.

that the city of Toronto, looking for a way to save some money from a virtual area, offered to bid. The city will run at least 140 million from the past system over the next two years, Parsons said.

Besides local voice service, Microsoft provides Internet access, other data services and access to long-distance services through partnerships with AT&T Canada Long Distance Services Inc., Sprint Canada Inc. and Novasoft Inc. Toronto is one of six cities where the company is operating; the others are Calgary, Edmonton, Vancouver, Winnipeg, Ottawa and Montreal. Parsons said the team has plans to enter four more cities this year.

Microsoft logs North American corporate desktops

MILWAUKEE, N.Y. (905)-44-4444. Another survey by researchers at Global Cap. plans to show Microsoft has all but complete control in the North American corporate desktop. Global Cap. in 1997 has shown Windows (mostly in the form of Windows 95 and NT) runs on 92 percent of surveyed desktops while MS Office software has taken over from previous leaders like WordPerfect. Lotus 1-2-3, Microsoft's Excel, and Lotus 1-2-3.

The survey, The 1997 Global Firm Managing Workplace Technology, was taken last September and is based on mail-in replies from 216 non-profits and various corporate executives in the U.S. and Canada.

Local changes the survey has offered

over the past three years are striking.

Since 1993, the number of respondents who say they use Windows has soared, growing from 61 to 92 percent, while users of MS Word rose from 43 to 82 percent.

Use of Lotus 1-2-3 spreadsheet software dropped from 45 to 37 percent while Microsoft Excel jumped from 41 to 79 percent.

Novasoft Graphics, the presentation software package, all but left the table and now shows three percent usage down from 27 percent in 1993. During the same time span, Microsoft PowerPoint increased from 18 percent to a dominant 84 percent of those surveyed.

In the group, Lotus 1-2-3 is still listed with Microsoft Exchange said by 32 percent of the respondents, compared to 31 percent who use Lotus Notes. However, when the question was first asked in 1993, Lotus Notes led by 68 to 18 percent.

Addressing the survey, vice president of Global Consulting Services, said Microsoft's dominating market position is translating to products together.

The survey is available free at www.pcg.ca or the Global Web site.

Contact: Global Workplace Software Inc.

Mobile releases database software

the Palm 1

EDMONTON, England (905)-444-4444. Mobile Software has unveiled Mobile Maps, a Palm Series 3 package. It claims allows people on the

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Buying basics for network printers

BY GEOFF WHEELWRIGHT

Networked printers are in demand. Many more manufacturers are now entering into the market for printers that will operate over a corporate network or be shared by large numbers of users. The degree to which printers are networked appears to depend as much on how they meet the requirements of being a well-networked network

printer as on how low or how well they print.

There are about five qualities you should typically look for in a network printer. Some of these are important to individual users as well, but the lack of any of these qualities in a networked printing environment becomes a much more acute problem when many users are trying to share one unit with a large network print.

Speed and memory capacity

No one takes to work takes to a printer to get out a long document. Even the most test users there is a huge backlog of people behind them who are waiting for their much shorter documents.

There are a number of factors that go into printer performance. The two most basic are the "line to line" speed and the memory capacity of the printer. A printer that prints quickly after the push button on screen is praised as fast, but it is not so fast if it needs to do a lot of processing before it actually begins printing. Image or text is paper.

The speed of the processor, the number of pins, the characteristics of the printer driver software and the speed of moving print data will all have an impact on this performance measurement. One of the other contributing factors here—as well as overall printer speed—is the amount of memory in the printer.

If you are printing long documents, or even just those containing large amounts of graphics or photography, this memory makes a difference. When your computer sends data to the printer over the network, it stores in the printer's RAM file. It is held there in a "buffer" until the print is complete, and it is then memory and speed in the card bank of data from the network is on the line of a significant component of the computer.

The local RAM in the printer is more quickly it will be able to accept all the data from the network. This will not only help speed up printing, but also on the printer's main controller in the system can be the same as data to get from network to printer, but will also "buffer" the network from the print job data quickly.

Page capacity and flexibility

Another important factor is the ability of a printer unit to offer networkers in that the printer can print out of paper.

Thinking that there are no pages left in the printer is almost as frustrating as running out of water pipes in the working moment. There are several factors that can be built into a network printer to minimize this problem.

The first is a high-capacity paper tray that can hold hundreds of sheets. Some high-end network printers have been known to handle up to 2,000 sheets before running out.

The second factor is building some "intelligence" into the on-board printer software so that it can generate a message—either on the printer's external status panel or send the network, to the person responsible for refilling the paper—when the printer is getting low on paper. This message is the same way as the "warning light" on your car's fuel gauge, letting you know that you have to refill your car so you it is out of gas.

The third factor that printer design is the system to reduce paper-related problems in

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KIDS

Evolution engages and educates

BY JEAN ALLAN IRISON

What do you get when you cross Civilization with Jurassic Park? Answer: Intelligent. The Game of Intelligent life: a new release from Discovery Channel Multimedia.



Evolution: The Game of Intelligent Life

Apple, Delux, Windows, Macintosh
Platform: Windows 3.1
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http://www.pcw.com

This is the first new family-oriented video game since Civilization II. If you love the ways of Ninjaboy or Civilization, they will be able to play this one alongside teens and adults who have been waiting for a good new strategy game.

Small wonder it's good. The executive producer for the game is Al Roberts, who has worked on both Civilization and C-IP South Pacific. The game is programmed by Computer Technologies in New York and distributed by Interplay, which should make it easier to find than other Discovery titles here in the past.

Evolution fits into the educational genre because players learn about biological evolution across a span of 400 million years: 170 existing, extinct and fictional species, geology (such as plate tectonics) in the form of a puzzle-solving strategy, and the history of science.

For each species (many are dinosaurs) you learn when they lived, where they lived and how well they lived in each terrain. You may want to evolve a new species that will thrive in an environment different from your own and compete. It might be a problem to attract opponents in a species that will thrive in a competing one.

Like Ninjaboy or Civilization, "Things" happen. The game may pause while dinosaurs die and evolve; the climate may abruptly shift in an ice change (also triggered by dinosaurs such as mammoths) or a supernova or huge meteorite. Weather is a minor thing in Ninjaboy and Ninjaboy 20 percent of all things happen (few can ever trigger) those things caused unless you are playing with a network.

And spawning of species, they move in 3D animation and "evolve" and mix while they attack, evolve and sometimes die.

The challenge is to keep your dinosaurs alive in a constantly changing world. Most of the game is based on accurate science but a few liberties have been taken. Some fictitious species are included, and a few old ones have been named so different as "T-Rex" (the game's A. rex) and "T-Rex" (the game's A. rex).

A few new species can be used to demonstrate that there's actually more than one dinosaur game.

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Clue Finders uses adventure to teach

BY JEAN ALLEN-IRESON

The Learning Co. has released a slick educational title for parents to share with their kids called *The Clue Finders: Third Grade Adventures*, but its tone for older kids, after kids choose one of four difficulty levels, the four child detectives in the story embark on an Indiana Jones-type adventure.

Clue Finders: Third Grade Adventures
Pete, The Learning Co.
Tel: 800-237-1489
<http://www.learningco.com>
For Windows 3.1/95, Macintosh
Retail price: \$29.95

The program uses adventure to teach reading, word recognition and comprehension skills. The "quest" objective is to help

reach the adventure. In Pythagoras, find the lost city, and capture its evil master. Players must find and collect a series of keys, and numerous puzzles with awarded answers keep the gameplay interesting.

Complex one of the learning content: from 16 and more new adventures with lively maps that strengthen the connection in the journey. The adventure has players creating maps of the and coping with a talking book of word cards to make a key. As with most educational titles, children must answer questions and solve math problems to advance in the story.

What makes The Learning Co. title stand out is the thorough research and field testing that goes into each new product. The educational content is grade appropriate and reflects the professional in graphics and design. Kids can play in their own adventures made where they work on a variety of skills to practice make where they concentrate on just one or two. They also have two versions for

reading: each on the side that the Clue Finders carry and have the question related to a slightly different answer or receive tips on developing a problem-solving plan.

Clue Finders is designed to help imagination and make learning fun. The Learning Co. is producing a report for fourth graders later this year, even though the fourth level of difficulty is not at this time in the current product. A surprise ending in *Third Grade Adventures* should entice kids to play fourth

Grade Adventures when it is released.

Only only complaints with this title are that the graphics is exactly 3D, and that the text description is not too good. In Pythagoras's story, it is very good and very detailed, a key is a better example.

While I realize that they are trying to give kids the idea that they can take the lead, with the roles reversed, it would be better to have the boy actually appear as the owner of a pin on a long white line (change action).



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Washington Post launches new political site — The Washington Post has launched a new section on its Web site that houses its political news. The site, which will feature news located at a better time, both political and news, and contains the writing of the newspaper's news and opinion reporters. The Politics site is a great independent source of the nation's political coverage, and is available and features continuously updated political coverage from The Washington Post. The Politics site is a continuation of The Washington Post's commitment to news and information.

<http://www.washingtonpost.com/politics/index.html>



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Europe sanctions police Net snooping

BY SYLVIA DENNIS

THE FBI IS OFF—While there can be little doubt that police forces in this country are already aware of the issues to avoid (and in those cases, despite the European Commission is making a proposal to formally approve such action, and even suggested that, offices are now again focused on the problem of organized crime.

Currently, European police, while granted access of the FBI and the United States, are allowed under U.S. law and computer counter legislation supply specific email messages a problem. In the U.S., for example, this is allowed under the same category as voice intercepts and, as such, is protected under the interception of Communications Act. A law that is protected in all U.S. countries.

It is interesting, held recently in the U.S., and headed by Jack Bauer, the British Home Secretary, the man charged with monitoring the police and recent justice agencies in the U.S. IC article agreed to have at the time

ability of removing email from the same law, as well as communications.

IC article said, however, that any type of removal would have to be very carefully controlled in order to change the rapidly growing computer and Internet industry.

Nonetheless, some British police, as well as email would almost certainly require the use of a court order, a situation that eventually applies to voice and data (including email) to all IC countries.

Finally, the IC agreement, which has been made, would put the official stamp of approval on an otherwise grey area of police procedures and would almost certainly ensure the transfer of some codes issued by legal officials.

According to Jack Bauer, who was heading the first meeting at which the U.S. is negotiating as the IC agreement, the need for access to email by police is something that is very necessary, and the police are using FBI ordinary procedures to police the country, contrary to

European sanctions on U.S. police — FBI—There's the plan to find out about human security on the Web. There are over 100 documents of the human body, accompanied by information and thousands of data on the Internet. You need a Web browser that supports this to get the most from the Web.

For a complete look at this story, visit: www.fox.com



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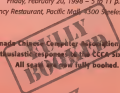
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Michael Vinovich's top special effects sites

Michael Vinovich is a computer artist specialized in Real Effects Software (http://www.realsoft.com), a good Canadian company that makes high-end computer animation software. Its Realsoft and Polaris 3D computer graphics software packages have been used to create special effects for such movies as *Independence Day*, *Species*, *Demolition 2*, *Alien Resurrection*, as well as the television series like *Nighty Night*, *Power Rangers* and *Star Trek*. The following are his favorite special effects-related Web sites—Keith Schuchman features

movies going back as far as 1974
<http://www.comet.com/~rcsnet>



3. Lynda Weinman's Page • A great place to start if you are thinking about creating a Web-related career. Accompanying list of links will help you on your way to solving many problems.
<http://www.lynda.com/>

6. Digital Domain • A great looking site from one of the world's leading special effects houses. Feel out how a good company looks from the inside out!
<http://www.dd.com/>



1. Charles Paparone's Home Page • A great, high-level, quick bag of information about video design, and digital signal processing. Why should you go there? This guy knows what he's talking about.
<http://www.chev.com/~paparone>

2. Action Systems Inc. • The company makes the most powerful image-processing and cloning software out there and is able to move their technology with age, galleries, and helpful downloadable guides.
<http://www.action.com>

3. Real's 3D Site • This is an encyclopedia collection of all things relating to computer-generated imaging, from video animation, to live painting, to the latest Real-time games, you'll probably find it here.
<http://www.3d.com>

4. Visual Effects Headquarters • Do you want to know how they made the alien ships crash-land in the new movie? Visit VHQ's interesting and informative site where you'll see the wonders of how special effects in movies are made. No site covers

5. Communication Arts • The magazine's home page is one of the best in print and multimedia design with its interactive pages. This shows you where you're in the world of creative.
<http://www.comarts.com/>



8. David Inghel's Page • A commercial site in that he wants you to invest money in the 3DML application to achieve specific layout effects. It's always thought-provoking.
<http://www.inghel.com/>

9. The Missing Company's Graphic Design Page • This spot is a great start for those who do things things-related. The links and advice are invaluable.
<http://www.missing.com/>

10. Silicon Graphics Home Page • This site claims to be one of the largest on the Web at about 400,000 pages. You will see everything in the visual domain, but when it comes to give you insight into one of the sites makers of coming edge tool were for computer graphics.
<http://www.sgi.com/12>

Digitalizer Power • With all you're a Real Audio fan, you might be interested in this new software. It's a alternative to the Popcaster. However, Real Audio rates and offers 128 percent better, hundreds of thousands of instantaneously reproducible, clean, full, high-quality music, and much more. It's a revolutionary software that you can download and try it free for 30 days.
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■ TUCOWS'S SHAREWARE

Casino games have no-cash option

BY SCOTT SWEDORSKI

TUCOWS has opened a new online casino game series: TUCOWS' Games-Beyiv (<http://www.games-beyiv.com/>), which contains all kinds of games (including three cards solitaire games, keno and slot). Many of these games can be played online as well, so it is not necessary for players to sit at the table—you can have all the fun with out the risk by betting "virtual chips" instead.

The applications featured on Games-Beyiv are supported by fully licensed multi-media licensed custom icons on screen, animations, gameplay is smooth and the graphics are outstanding. And, with many features to fit into the game, and supported by digital sound and video, Games-Beyiv offers opportunities, and players may choose from the standard casino games: Blackjack, Keno, Jack, Video Poker Games, Roulette, Slots and Craps. There are also Web-based live games available.

Of course it is important that online gaming is confidential. Many anti-gaming and gambling support groups have expressed concerns that Internet gaming will remove the traditional of addiction problems. They point out that the ease of use and privacy offered by the Internet can be a powerful catalyst. At TUCOWS, that has been taken care of: the most popular online shareware available and in their online, some sites feature links to Gamblers Anonymous (<http://www.gamblers-anonymous.org/>).

Annapolis Internet Casino



Version 1.01
Release date: May 1, 1995
Release: 2700KB
File size: 1,040 KB
Format type: Windows



Shareware: <http://www.tucows.com/shareware> can also include Windows 3.11 version.

If possible, Internet Casino offers a game playing power pack that the ability to play online for fun or under the eye money in their licensed multi-media Internet casino. 3D graphics, audio sound, and video animation, client support the smooth play of the game.

StarCasino



Version 0.04
Release date: Aug. 16, 1995
Release: 2000KB
File size: 1,402 KB
Format type: Windows
Language: <http://www.starcasino.com/>
Also available: Windows 3.11 version, the Internet Casino is a beautifully modeled gaming

program that lets you play the standard casino games online for fun or under the eye money in their licensed multi-media Internet casino. 3D graphics, audio sound, and video animation, client support the smooth play of the game.

World Gaming Casino



Version 1.0
Release date: May 1, 1995
Release: 2000KB
File size: 1,040 KB
Format type: Windows
Language: <http://www.worldgaming.net/>
If possible, the Internet Casino offers a game playing power pack that the ability to play online for fun or under the eye money in their licensed multi-media Internet casino. 3D graphics, audio sound, and video animation, client support the smooth play of the game.

Continued on page 120

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GAMES

Your first, last and only defence

BY JEFF EVANS

Continuing the trend towards PC games based on hit television it moves this time from sci-fi to law enforcement, giving you the best of both worlds in a shoot 'em up and a ball game. *Men in Black* Interactive has released a game based on 1997's highest-grossing film. *Men in Black*

is not only a first, but also a last, as the level of difficulty increases it is designed to be a challenge, especially to older players with slower reflexes (read: For those who

enjoyed the movie. *Men in Black*. The game offers a chance to engage in first person participation in the battle to keep

Earth safe from ugly, slimy, scary creatures who make any poor innocent's life surprisingly like real life actually. *G*



Men in Black: The Game that Takes Aim at the Scum of the Universe

from Summit Interactive
Tel: (416) 477-0000
http://www.meninblack.com
Minimum system requirements: Pentium 100 MHz, 16 MB RAM (minimum 32), 4x CD-ROM drive, Sound Blaster (or compatible sound card), 2 MB video memory, 16-bit color display resolution.
(rated under 16)

Presented by Summit Studios, *Men in Black: The Game* is a fully featured 3D interactive game. It allows players to assume the role of any of the three MIB agents (from the movie: Agents K, J, or L), played by Tommy Lee Jones, Will Smith, and Will Smith respectively, in three different mission environments.

We tested the game on an 800 MHz Pentium PC with 32 MB of RAM. Installation was very straightforward, but when the game was tested, the 3D action was very smooth. The graphics are very nice; the 3D characters really look like their movie counterparts and their motion is very natural and quite detailed—it appears as though either a motion-capture system was used for the movement data, a very good imitation, or both.

The gameplay is good with a ticky set of controls and clear helping the players learn the layout. Once you're inside the game, it's a lot like being in the movie. In fact, it's a lot like being in the movie.

Worldwide nuclear reactor database • Part of the International Nuclear Safety Program, the Pacific Northwest National Laboratory of the Department of Energy maintains a database of maps that show reactors using Soviet-designed nuclear reactors and their locations. The maps cover the former Soviet Union, Eastern Europe, and the Middle East. You can also find photos, descriptions, and information on the reactors.

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CD REVIEWS

Nothing human is foreign to me

National Geographic releases 30 CD-ROM collection

REVIEW BY JEFF EVANS

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The National Geographic Society of America was founded during a time in history when the country was coming into its full strength and self-confidence. The period after the Civil War and before the first great war when anything seemed possible. The country was, like many of American civilizations, inspired by an English idea in this case the Royal Geographical Society of London. However the American society eventually took a great leap ahead of its British counterpart when in 1888 it began to publish a journal popularizing the travels and discoveries of its members and associates.

With considerable financial sponsorship, the National Geographic journal would become a popular culture institution. In 1958, the national journal took a big risk by publishing an astonishing photo essay on the almost unknown land of Tibet and a tradition of photographic excellence was begun which made National Geographic magazine America's window on the world.

Critics sometimes point out that the National Geographic gave a very 1950's (white, Anglo-saxon Protestant) American take on the world, proceeding from an unspoken assumption that white middle-American life was the most real and important and everything else was somehow exotic. However, with time, the magazine has become more inclusive and sensitive to multicultural concerns. As a result of changing with the times, the magazine's circulation has grown to over nine million, and it is popular in many countries outside the US.

For nearly six generations of families however, despite the magazine's sometimes negative and prejudicial aspects, the National Geographic remained a reading introduction to the world beyond the horizon, and sometimes to the unexplained world of America's own landscape. After a century of publication, the National Geographic had compiled a rich record of global human culture,

nature, technology and philosophy, and also of the cultures beyond our planet. Many of the people, animals and ecological systems that it described in the early years have since vanished or been sadly diminished.

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CD REVIEWS

A full collection of *National Geographic* is a worthy thing, both in terms of vastness of information, and in terms of sheer beauty: new colouring maps, illustrations of life on paper, ink, glue and staples, requiring many meters of shelf space! So it was appropriate that the history, as often a technological leader in photography, printing, and the expansion into new media such as video, would decide to collect its vast run of issues into a modern, compact digital format. With the assistance of well-known artist (and multimedia publisher) *Minidragon*, *National Geographic* has collected its entire run of 1,185 back issues into a boxed set of 20 CD-ROMs.

When I received a preview copy of the set, we installed it on an IFC computer with a 200 MHz Pentium processor and 32 MB of RAM, running Windows 95. The installation was very simple, and took up only a very small amount of hard drive space.

The CD-ROM set, with many gigabytes of text and graphics, requires a very flexible and powerful music engine, and the one supplied with the set is in fact way to slow, but quite competent. It is easy to search for and call up pictures, maps and articles from any issue, view them on screen and print them out. But what's possible, unfortunately, is to find and print out from articles into a word processor for use there to dole. A basic feature of the product is that small parts of text in the magazine were copied as though rather than going through its optical character recognition (OCR) routine and being saved as word processed text files. In fact, the cost of scanning and doing OCR and conversion, and then formatting the

scanned pages as Adobe Acrobat pdf files at \$1000, this would have been prohibitive. With over 100,000 pages in the entire set, the extra costs of creating a formatted text file for the entire would have run into the millions of dollars, and the retail price of the product would have been much less attractive.

As it is the normal text, it is readable onscreen, but prints more slowly. The pictures, though, are the main highlight of this set. There are over 100,000 of them, including many before images that have become part of the popular memory. One additional asset is that although most text maps are reproduced, the first large format colour maps that many have come with have not been reproduced, possibly due to the difficulty of viewing them only on a computer screen. Some often along the time of a method to show dark colour of large maps to support scrolling would have been appreciated. Apparently for a product issued for the Internet Age, there is an extremely small amount of text, collectors' notes and commentary for the contents of the collection. One nice touch was the inclusion of the original advertisements that have appeared in the journal over the last 150 years. There were a perhaps a hundred pocket-sized history of American conservation over many decades. The pocket book itself has it to the only "It shows American culture at perhaps its most appropriate."

As it is, this collection is a must for anyone who loves natural photography, history, the history of human nature, the history of *Minidragon* as it is the encyclopedia of their adventures, although illustrations of their with may cause a slight decline in their because of a small of this collection's upper end.

Are we alone in the universe? • M—trying to answer that question is the focus of the Search for Extraterrestrial Intelligence (SETI) Institute. You'll know the group if you've read the popular Center. The Web page outlines some of the research the group does and also asks for your help and donations. There are links to related subjects and you can even buy SETI merchandise.

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Internet Index to Publishers • IGI... it will probably be a while before "Index" becomes a Internet service for that matter, since there are no indices online. The Publishers Web Directory contains information on 314 Web sites on the Internet Index, accessible via a search engine or through the special category. You can link to sites from the site feature list to publishers, books and culture.

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BOOKS

Avoiding Year 2000 deadline doom

BY KEITH SCHENCKILL-ROBERTS

Y2K, or the Year 2000 problem, is a major headache running across the computer industry and the wider world partially due to a slight oversight by the computer code of past decades. The conversion for indicating time and date in computer programs and files must be calculated on the basis of a "year=century" format, so "99 and 00," for example (1999/August) would be read as 01/00/01.

New to 2000

Editor: DQ Books Worldwide
Authors: Stephen J. Owens, Don Sims et al.
Date: 6-14-98 310 p.
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Price: \$49.95

When the millennium turns over, many computer systems will not be able to accept dates beginning with 00 (for the year 2000). The results will be disastrous. Fire trucks and elevators filled with diagnostic chips that shut the systems down unless they receive acceptable performance data will simply become inoperable when the year 2000 rolls around. Accounting systems and databases of most Fortune 500 companies, educational institutions and government agencies will generate records or records potentially shunting down everything from electrical utilities to banks. It goes on, and on, and some of the conversion are pretty frightening.

Given the billions of lines of programming code and billions of files contained in Y2K-sensitive systems, the task of fixing this mess is literally gigantic. Although the problem has been known for over 30 years, many companies delayed spending time and money to fix it until recently.

Many analysts have claimed that it simply isn't enough time, unless few qualified people, to solve this massive problem in the time available between now and the 2000. While it might be so, it isn't clear to me.

This "Y2K management" manual is the distillation of the authors' considerable experience during the Year 2000 problem in large computer systems. The book is laid out as a working plan for virtually any enterprise that with a Year 2000 problem. It deals with developing systems to fix, and upgrading the best systems possible. Rather surprisingly, it seems many of the large organizations we depend on are having to wrap their minds around the fact that not everything can be fixed in time, and they will have to perform "damage" pieces fixing highest priority areas first and delaying others. The authors suggest a nine-stage process: Planning and Assessment, Inventory, Triage, Detailed Assessment, Remediation, Test Planning, Test Execution, Deployment, and Follow-up.

Many companies likely have already done at least some of the initial steps. Now to 2000 will be very helpful in putting the Y2K process in a logical framework, and helping to define what remains to be done.

Perhaps not surprisingly, Stephen J. Owens also offers advice Y2K testing and technical services. After reading this book, computer managers may be ready to sign up to do whatever is necessary to

ensure they beat the looming Year 2000 deadline.

In the aftermath of the ice storm that devastated Quebec and parts of Ontario, Canadians have learned the consequences

of a modern society not able to operate randomly being yanked away. Now the Year 2000 is a blueprint for avoiding the pain to avert a computer equivalent. **D**

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January 1998
Winter Edition

Just a short intro...

Welcome once again to "Book Bytes," Canada Computer Books' quarterly newsletter. Following the success last fall of our first appearance in The Computer Store, we're back again with more news, information, and the latest computer books for reading (and for the information technology field).

As you know, change is a part of our daily lives and this holds true for us at Canada Computer Books, where there have been a number of changes since the last issue of the newsletter.

There is a new addition to the Canada Computer Books family with the opening of Yonge Computer Books this month. December these stores are located in Waterloo, Mississauga, and Toronto. North York Computer Books closed operations in January 1998.

Our newest store, Yonge Computer Books, is located at 4250 Yonge Street, just north of the North York Civic Centre, and the Ford Centre for the Performing Arts. There will be plenty of free parking, and the store will feature the same great service and selection you have come to expect from Canada Computer Books. Be sure to watch for our Grand Opening on February 10th.

In January, our Waterloo store is located from its downtown location to a new home close to Wilfrid Laurier University and the University of Waterloo. If you are in the Kitchener-Waterloo area, be sure to drop in for a new and improved Waterloo Computer Books.

Canada Computer Books is now on the Internet. You can contact our stores by e-mail (see last page for addresses) should you wish information on any computer-related title. As well, two of our stores have Web sites. Waterloo Computer Books' site can be found at www.torcomp.com/~waterloo, and Mississauga Computer Books' is at www.mississauga.com. The Mississauga (and the Waterloo) Web site is a fully searchable database of some 6,000 titles, including the latest upcoming releases. Books can be ordered directly from the website and packed up for delivery to your home or business. The website also contains links to most major computer book publishers. Please check us out!



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A CCB Special Profile-Microsoft Certification

Here at CCB's Computer Center, we have been helping meet and solve problems about Microsoft Certification. We realized that there are quite a few people out there that do not have information about the various Certifications, what it entails, what training is available, where to take the exams, etc. Since the majority of Certifications candidates are here, as part of their training we have decided to put together some information for those interested in taking the exams. In this article, we are going to cover the six Microsoft Certifications and what the requirements are for being certified.

Microsoft Certified System Engineer (MCSE)

This is probably the most common Certification available on the job today. Asked for network professionals, MCSE is qualified to plan, implement, maintain, and support information systems using the Microsoft Windows NT Server and the Microsoft Windows NT Server and the Microsoft Windows NT Server and the Microsoft Windows NT Server. MCSE candidates are required to pass two operating system exams, commonly called the Core and the elective exams. About nine candidates should be studying for the NT Server 4.0 exam rather than the older MS 1.01. This exam is often the one Microsoft is looking for the user to install and implement the most recent 4.0 OS version. If your training, our course is considered normal 3.51 then that is by all means.

MCSE+Internet

A similar designation, MCSE+ with Internet connects, network, display and manage sophisticated content and network solutions that include a Internet proxy server, local server, database and Internet and e-commerce components.

MCSE+Internet candidates are required to pass seven operating system exams and three elective exams.

Microsoft Certified Solution Developer (MCSd)

Asked as developers, the MCSd designation covers that the holder is qualified in design and develop custom business solutions with Microsoft's development tools, technologies and platforms, including MS Office and MS Access. MCSd candidates are required to pass two core technology exams and two elective exams. The core exams include Windows 95 for applications, OLE, UI design and Windows Open Services Architecture components. The elective exams include such as a skill with Microsoft development tools.

Microsoft Certified Professional (MCP)

The certification is for those who have demonstrated expertise with a particular Microsoft product. Candidates must demonstrate knowledge of at least one Microsoft operating system. The successful candidate will, at a minimum, have additional qualifications for various other Microsoft products, development tools, or applications.

MCP's are designated pass one operating system exam.

MCP+Internet

The MCP+Internet designation is for those who have a specialty in Internet technologies. They have been qualified by Microsoft to plan, design, install and configure server products, manage server resources, install services in the CGI script, and design, install and manage performance and

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Microsoft Certified Trainer (MCT)

MCTs are certified by Microsoft to instructively and technically deliver Microsoft Official Curriculum courses. All courses at Microsoft Authorized Technical Education Centers and Microsoft Authorized Academic Training Program institutions. For the requirements for this designation please contact Microsoft.

Where...

You should note that the designation and the its requirements for those designations change as fast as software does. This means that the information presented here and on the other bulletin is, probably, will be change another year or more. Please check with Microsoft your choice of exams for a long as Microsoft considers the original source you took to be current. After those criteria have been passed you have to be recertified with the new ones.

For further information, call Microsoft at 1-800-444-7244 or visit them at microsoft.com, or visit them at training@microsoft.com. And, as for where you can take the exams, call Sybex Resources at 1-800-733-EXAM for the closest Sybex Resource Center.

Good luck!

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Exam 70-021 Exam 70-021, Exam 4.0 Database Implementation	Y				
Exam 70-022 MS SQL Server 4.0 Database Admin for MS Windows NT	Y				
Exam 70-024 Developing Applications with C++ Using the MFC Library			Y		
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Exam 70-026 System Administration for Microsoft SQL Server 6.5	Y	Y			
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Exam 70-028 System Administration for Microsoft SQL Server 7.0	Y				
Exam 70-029 Implementing a Database Design on Microsoft SQL Server 7.0	Y				
Exam 70-031 Microsoft Mail for PC Windows 3.2-Exchange	Y				
Exam 70-047 Implementing and Supporting MS Windows NT Workstation 3.51				Y	
Exam 70-048 Implementing and Supporting MS Windows NT Server 3.51				Y	
Exam 70-049 Microsoft Systems Office Windows Application Development				Y	
Exam 70-050 Developing Applications with Microsoft Visual Basic 4.0 Using VBA				Y	
Exam 70-051 Interconnecting Microsoft TCP/IP on MS Windows NT (3.51)	Y				
Exam 70-052 Programming in Microsoft Visual Basic 4.0 for Windows				Y	
Exam 70-053 Microsoft Exchange	Y	Y			
Exam 70-054 Interconnecting with Microsoft TCP/IP on MS Windows NT 4.0	Y	Y			Y
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Exam 70-056 Implementing and Supporting Microsoft Windows 95	Y	Y			
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Exam 70-063 Implementing and Supporting MS SQL 5.0 and MS Index Server 1.1	Y	Y			Y
Exam 70-064 Implementing and Supporting Microsoft Proxy Server 1.0	Y	Y			
Exam 70-065 Implementing and Supporting MS IE 4.0 Using the Internet Explorer Administration Kit	Y	Y			
Exam 70-066 Implementing and Supporting Microsoft Exchange Server 5.0	Y	Y			
Exam 70-067 Implementing and Supporting Microsoft SQL Server 4.0	Y	Y			
Exam 70-068 Implementing and Supporting MS Systems Management Server	Y	Y			
Exam 70-069 Implementing and Supporting MS Internet Information Server 4.0	Y	Y			Y
Exam 70-070 Implementing and Supporting Microsoft Proxy Server 2.0	Y	Y			
Exam 70-071 Microsoft Windows Administration			Y	Y	
Exam 70-072 Microsoft Windows Administration			Y	Y	
Exam 70-073 Developing Applications with Microsoft Visual Basic 5.0			Y		

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